

ATTACHMENT B Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A cellular system for trains for transmitting and receiving information by radio ~~between an infrastructure and mobiles constrained to travel on a determined path~~, the ~~infrastructure~~ system comprising:
a wayside subsystem comprising a plurality of stationary transceiver stations distributed along the a determined path and allocated to successive cells, the transceiver stations of a given cell being spatially separated from each other and comprising at least two transceivers directed toward each other;
a plurality of trains constrained to travel along the determined path, and each mobile of the trains carrying a transceiver, and
a controller controlling the transceivers of the stationary stations and the transceiver carried by each mobile train are controlled in such a manner that, while a mobile train of said plurality of trains is in a given cell, exchanges between the mobile transceiver of the train and the transceivers allocated to the given cell take place on two different frequencies in alternation during two successive radio cycles so that for a radio communication from between the mobile transceiver of the train and the transceivers allocated to the given cell lasting a plurality of radio cycles in sequence, the communication takes place at a first frequency during a first radio cycle, at a second different frequency during the next radio cycle in the sequence, at the first frequency during the next following radio cycle in the sequence after said next radio cycle, at the second frequency during the next ensuing radio cycle in the sequence after said following radio cycle and so on, depending on the number of radio cycles, in a repeating pattern alternating between said first and second frequencies so as to provide increased immunity to interference during the radio communication between the transceiver of the train and the transceivers of the given cell.
2. (Original) A system according to claim 1, in which each cycle is constituted by a plurality of short exchange frames.

3. (Original) A system according to claim 1, using at time division multiple access mode of transmission.
4. (Original) A system according to claim 1, in which frames containing essential information are always transmitted on two frequencies in succession.
5. (Original) A system according to claim 1, in which the pair of frequencies used in a cell is constituted by two frequencies that are different from the frequencies used in the adjacent cells.
6. (Currently Amended) A system according to claim 1, in which ~~the mobiles are located in a train and~~ exchanges between the train of said plurality of trains and ~~at the~~ wayside subsystem take place using TDMA and a protocol for allocating time slots to ~~at the~~ plurality of trains in which a time slot is allocated to each train entering a cell by a wayside radio unit in response to the train sending an entry identification to the wayside subsystem.
7. (Currently Amended) A system according to claim 6, in which the exit of a train of said plurality of trains from a cell is detected by repeated failure of the train to respond to a request from the wayside radio unit allocated to the cell.
8. (Currently Amended) A system according to claim 1, in which ~~the~~ each train of said plurality of trains has two car radio units, one placed at the front and the other placed at the back, and designed to enable the two units to be handed over from one cell to another independently and in succession.